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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,422	02/05/2002	Tsuyoshi Yoneyama	111907	4116

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/062,422

Applicant(s)

YONEYAMA, TSUYOSHI

Examiner

Kevin M. Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6, 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/062422, filed on 5/23/2002.

Information Disclosure Statement

2. The information disclosure statements filed 2/5/2002 and 10/2/2003 which have been placed in the application file, the information referred to therein has been considered as to the merits.

Claim Objections

3. Claims 1-4, 6 and 7 are objected to because of the following informalities:
RAM at claim 1, line 2 should be read –random access memory—
RAM at claim 1, line 6 should be read –random access memory—
RAM at claim 2, line 8 should be read –random access memory—
ROM at claim 3, line 4 should be read –read only memory—
RAM at claim 3, line 5 should be read –random access memory—
FRCROM at claim 3, line 6 should be read –frame rate control read only memory—
ROM at claim 4, line 4 should be read –read only memory—
RAM at claim 4, line 5 should be read –random access memory—
FRCROM at claim 4, line 6 should be read –frame rate control read only memory—

Art Unit: 2674

RAM at claim 6, line 2 should be read –random access memory—

FRCROMs at claim 6, line 4 should be read –frame rate control read only memories—

RAM at claim 6, line 6 should be read –random access memory—

FRCROMs at claim 6, line 10 should be read –frame rate control read only memories—

FRCROMs at claim 6, line 13 should be read –frame rate control read only memories—

RAM at claim 7, line 8 should be read –random access memory—

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4 and 6-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Kudo et al (US 6,353,435).

As to claims 1 and 20, Kudo et al teach a display drive circuit associated with a method comprising RAM (a frame memory (8), figure 1, column 7, lines 29-31), a plurality of grayscale pattern selection circuits (107, 108) (figure 4, column 9, lines 33-

Art Unit: 2674

38) select at least two frame cycles (figure 6, column 10, lines 59-63); output a drive signal for a display portion (liquid crystal display 9, figure 1, column 7, lines 25-32).

As to claim 2, Kudo et al teach a data width conversion (22) (an image data conversion circuit) which receives 6 bits data, converts the 6 bits data into 16 bits data grayscale pattern and supplies the 16 bits data to the line memory group A (23) (figure 2, column 8, lines 16-25).

As to claims 3-4, Kudo et al teach a selection (106) (a selection ROM), and FRC decoder (101) (an FRCROM) (figure 3, column 9, lines 20-23).

As to claim 6, Kudo et al teach RAM (a frame memory 8, figure 1), a plurality of FRCROMs (FRC decoder 101 to 104, figure 3, column 9, lines 27-30), different frame cycles (figure 6, column 10, lines 59-63), a plurality grayscale No. 1 to No. 64 pattern generator correspond to a plurality of selectors (108) (figure 4, column 10, lines 12-50).

As to claims 7 and 21, Kudo et al teach a display drive circuit associated with a method comprising a data width conversion (22) (an image data conversion circuit) which receives 6 bits data, converts the 6 bits data into 16 bits data grayscale pattern and supplies the 16 bits data to the line memory group A (23) (figure 2, column 8, lines 16-25); a plurality grayscale No. 1 to No. 64 pattern generator correspond to a plurality of selectors (108) (figure 4, column 10, lines 12-50).

As to claims 8-13, Kudo et al teach a liquid crystal controller (3) (a drive signal circuit), a liquid crystal display (9) (a terminal outputs a drive signal, figure 1, column 7, lines 25-37).

Art Unit: 2674

As to claims 14-19, Kudo et al teach column drivers (504, 505), and row drivers (502, 503) (figure 48) which mutually intersect pixels.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo et al.

As to claim 5, Kudo et al teach a plurality grayscale No. 1 to No. 64 pattern generator correspond to a plurality of selectors (108) (figure 4, column 10, lines 12-50). it would have been an obvious matter of design choice to make separable selector (108), since such a modification would have involved a mere chance in the making separable of a component because the selector (108) still select the grayscale patterns for liquid crystal display device (9). A making separable is generally recognized as being within the level of ordinary skill in the art. In addition, make separable of a well-known element is normally not directed toward patentable subject matter, *Nerwin v. Erlichman*, 168 USPQ 177, 179 (PTO Bd. Of Int. 1969).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

Art Unit: 2674

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


Kevin M. Nguyen
Patent Examiner
Art Unit 2674

KN
January 12, 2004